

PLACEMENT OF THE BEETLE GENUS *EPARCHIUM*  
(COLEOPTERA: MELYRIDAE)

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## ABSTRACT

*Eparchium* is transferred from the Staphylinidae to the Melyridae and placed as a junior synonym of *Apterodasytes*, a member of the Dasytini. *Eparchiini* is a junior synonym of Dasytini. The 2 species of *Apterodasytes* are distinguished by color. A lectotype is designated for *A. paradoxa*.

In 1934 Bernhauer described the tribe *Eparchiini* for the new South African genus and species *Eparchium paradoxum*. He placed the tribe in the Staphylinidae between the *Omaliini* and *Oxytelini*. Since the *Omaliini* and *Oxytelini* were subsequently elevated to subfamilies and since *Eparchium* was not discussed in the literature after its discovery, the *Eparchiini* has neither been placed in a subfamily nor elevated to subfamily.

While studying *Eparchium* to determine its taxonomic position I realized that it seemed to be a strange looking rove beetle—it looked “too loosely constructed” for a staphylinid. The suspicion that it was not a staphylinid was confirmed when dissection revealed a cucujoid type of aedeagus, i.e., the tegmen (basal piece) envelops the median lobe (fig. 1, 2).

*Eparchium paradoxum* obviously was placed in the Staphylinidae because more than 3 abdominal terga are exposed from under reduced elytra. In addition, the 5 filiform tarsomeres, the filiform antennomeres, the absence of more than 2 sclerotized basal terga, the equally long tarsal claws, and the absence of femoral plates of the metacoxae all supported recognition of *Eparchium* as a staphylinid. However, the Staphylinidae do not have a basal piece on the aedeagus; the parameres are attached directly to the median lobe. In *E. paradoxum* the basal piece is fully developed and modified into a tegmen that surrounds the median lobe, a feature that immediately excludes the species from the Staphylinidae and places it in the Cucujiformia (Crowson 1960, 1970b).

Within the Cucujiformia, *Eparchium paradoxum* is placed in the Cleoidea because it has 5 filiform tarsomeres with each article exposed, procoxae that are conical and project from the coxal cavities, open procoxal cavities, exposed protrochantins, and no scutellary striole. Further, the tegmen has 2 small blunt outgrowths posteriorly (parameres) which are not articulated (as in fig. 5, 6). According to the definition of the family given by Crowson (1955, 1964, 1970a), *Eparchium* belongs in the Melyridae.<sup>1</sup> Within the family, *Eparchium* is placed in the Dasytinae because it lacks clubbed antennae, has appendiculate tarsal claws, has free abdom-

<sup>1</sup>Contrary to the statement by Bernhauer (1934), the mandibles of *E. paradoxum* are bidentate (fig. 3).

inal sterna, the first (visible) of which is raised into a keel between the hind coxae, has the first 2 tarsomeres equally long, and lacks protrusible vesicles at the sides of the prothoracic and abdominal segments.

After searching the dasytine literature for species with short elytra from South Africa, the description of *Apterodasytes staphylinoides* was found to fit *Eparchium paradoxum* almost perfectly. Subsequent comparison of part of the type series of *A. staphylinoides* with part of that of *E. paradoxum* confirmed that the 2 species can be distinguished only by color and therefore should be regarded as congeneric. *Apterodasytes* (Champion 1923) was described before *Eparchium* (Bernhauer 1934), and inclusion of *Eparchium* in the Dasytini as a synonym of *Apterodasytes* makes Eparchiini a junior synonym of Dasytini (**new synonymies**).

Whether there are 2 species or not is problematical. Among the series labelled as *A. staphylinoides* and *E. paradoxum* there are 2 forms: one is entirely black to blackish brown; the other is black to blackish brown with a median, moderately large reddish orange or reddish yellow maculation

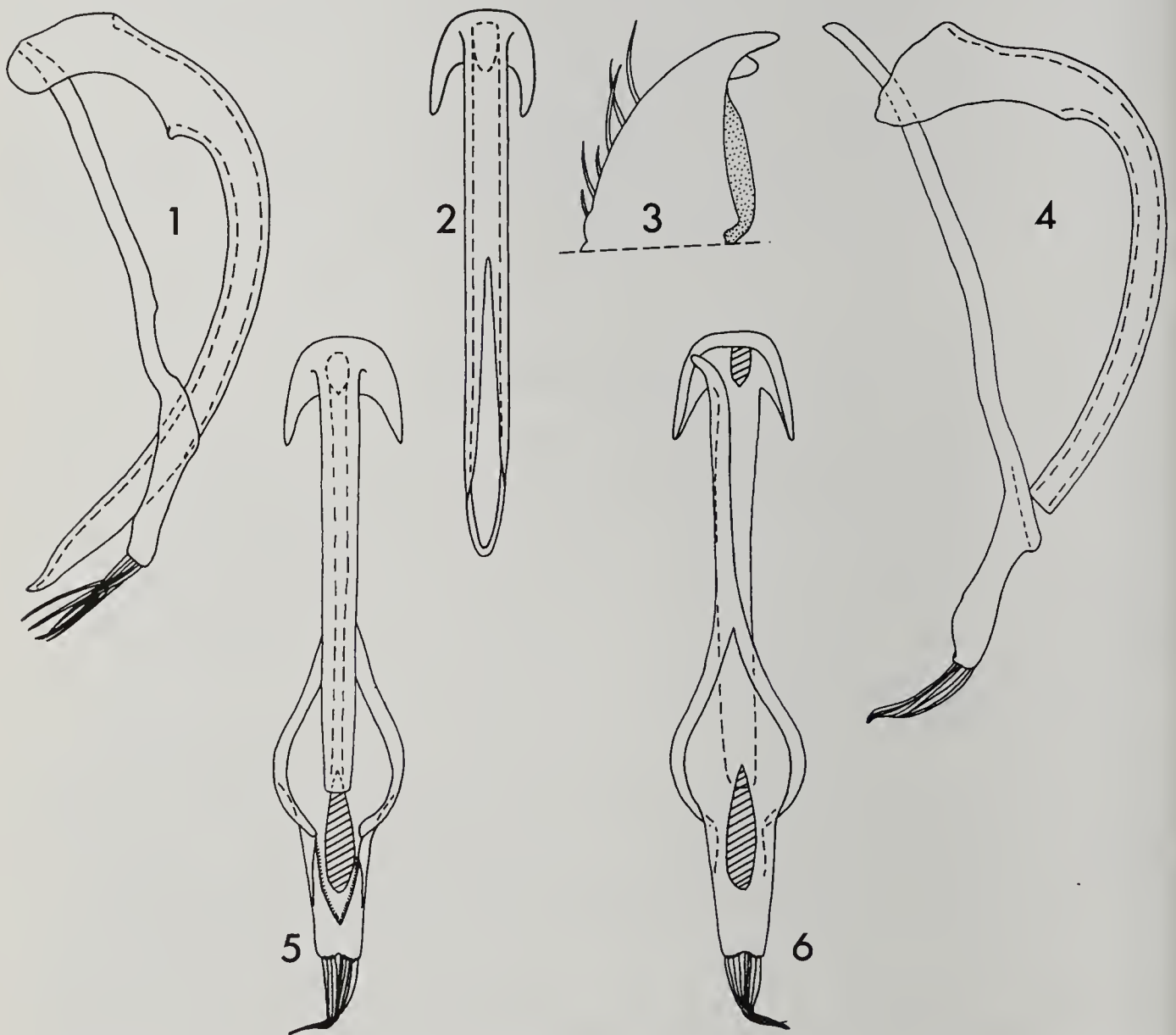


Fig. 1-3. *Apterodasytes paradoxa* (Bernhauer): 1) Aedeagus, lateral view; 2) Median lobe, dorsal view; 3) Mandible, left.

Fig. 4-6. *Apterodasytes staphylinoides* Champion, aedeagus: 4) Lateral view; 5) Dorsal view; 6) Ventral view.



on the basal 2 abdominal terga, and the basal 2 abdominal sterna are almost entirely reddish yellow. Champion (1923) described *A. staphylinoides* as being black, and all type material is from Prince Albert, South Africa. The 2 syntypes I studied from the type locality of *A. staphylinoides* are black. Material subsequently identified as *A. staphylinoides* has both the black and bicolored forms.

Bernhauer (1934) described for *E. paradoxa* both the black and bicolored forms but neither a holotype nor lectotype has been selected. Since the bicolored form is illustrated (Bernhauer, 1934, pl. XIV, fig. a) with the description it seems best to select a specimen of this form as the lectotype and accordingly I do so.<sup>2</sup> Such selection precludes the necessity of naming the bicolored form if the 2 are actually different species.

The apex of the median lobe of the bicolored form (fig. 1, 2) seems to be attenuate with a long, dorsal ostium, and that of the black form (fig. 4, 5) seems to be truncate with a small apical ostium.<sup>3</sup> The apex of the median lobe of the black form may have been broken, thus giving an apparent aedeagal difference. I had no additional males of the black form to check this possibility.

Until further study is made of the 2 forms, it is best to regard *Aptero-dasytes* as having 2 species, a black one, *A. staphylinoides* Champion, and a bicolored one, *A. paradoxa* (Bernhauer), **new combination**.

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<sup>2</sup>The lectotype deposited in the Field Museum of Natural History has the following label data: "Cape Province, Matjesfontein, 22-23. X. 1928; S. Africa, R. E. Turner, Brit. Mus., 1928-491; Eparchium n.g. paradoxum Brnh., Cotypus; Paradoxum Brnh., Typus, Eparchium." I have placed on the pin a lectotype label.

<sup>3</sup>The aedeagus of only one specimen of each form was examined.